

TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS

PCT

RAPPORT PRÉLIMINAIRE INTERNATIONAL SUR LA BREVETABILITÉ

(chapitre I du Traité de coopération en matière de brevets)

(règle 44bis du PCT)

Référence du dossier du déposant ou du mandataire 9670WO	POUR SUITE À DONNER Voir le point 4 ci-dessous	
Demande internationale no. PCT/FR2005/000319	Date du dépôt international (jour/mois/année) 10 February 2005 (10.02.2005)	Date de priorité (jour/mois/année) 16 February 2004 (16.02.2004)
Classification internationale des brevets (8 ^e édition, sauf indication d'une édition antérieure) Voir les informations pertinentes dans le formulaire PCT/ISA/237		
Déposant WAVECOM		

1. Le présent rapport préliminaire international sur la brevetabilité (chapitre I) est établi par le Bureau international au nom de l'administration chargée de la recherche internationale selon la règle 44bis.1.a).

2. Ce RAPPORT comprend un total de 7 feuilles, y compris la présente feuille de couverture.

Dans les feuilles jointes, toute référence à l'opinion écrite de l'administration chargée de la recherche internationale doit être entendue, à la place, comme une référence au rapport préliminaire international sur la brevetabilité (chapitre I).

3. Le présent rapport contient des indications relatives aux points suivants :

- | | | |
|-------------------------------------|---------------|---|
| <input checked="" type="checkbox"/> | Cadre n° I | Base de l'opinion |
| <input type="checkbox"/> | Cadre n° II | Priorité |
| <input type="checkbox"/> | Cadre n° III | Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle |
| <input type="checkbox"/> | Cadre n° IV | Absence d'unité de l'invention |
| <input checked="" type="checkbox"/> | Cadre n° V | Déclaration motivée selon l'article 35.2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration |
| <input type="checkbox"/> | Cadre n° VI | Certains documents cités |
| <input type="checkbox"/> | Cadre n° VII | Certaines irrégularités relevées dans la demande internationale |
| <input checked="" type="checkbox"/> | Cadre n° VIII | Certaines observations relatives à la demande internationale |

4. Le Bureau international communiquera le présent rapport aux offices désignés conformément aux règles 44bis.3.c) et 93bis.1 mais pas avant l'expiration du délai de 30 mois à compter de la date de priorité (règle 44bis.2), sauf si le déposant a présenté une requête expresse à cet égard en vertu de l'article 23.2).

Date d'établissement du présent rapport
01 November 2006 (01.11.2006)

Fonctionnaire autorisé

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PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **See form PCT/ISA/210**

Applicant's or agent's file reference
9670WO

FOR FURTHER ACTION

See paragraph 2 below

International application No. PCT/FR2005/000319	International filing date (day/month/year) 10.02.2005	Priority date (day/month/year) 16.02.2004
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International Patent Classification (IPC) or both national classification and IPC
H04Q7/Q8, H04L27/26, H04Q7/22, H04B7/26

Applicant
WAVECOM

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2005/000319

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-24</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims _____	YES
	Claims <u>1-24</u>	NO
Industrial applicability (IA)	Claims <u>1-24</u>	YES
	Claims _____	NO

2. Citations and explanations:

2. Reference is made to the following document:

D1: US 2003/081538 A1 (WALTON JAY R ET AL) 1 May 2003
(01-05-2003)

3. The present application fails to comply with the requirements of PCT Article 33(1) since the subject matter of independent claims **1, 19, 23 and 24** does not meet the criterion for novelty defined in PCT Article 33(2).

Document D1 describes (the references in parentheses apply to this document):

A system in which a supplementary channel is connected to a principal bidirectional symmetrical channel, the said principal bidirectional symmetrical channel comprising a principal uplink path and a principal downlink path (paragraph 26: "IS-95, cdma2000, IS-856, W-CDMA", etc.), ensuring particularly the transmission of data and signalling and control information at low or medium speed [see Section 1 below] (paragraph 28,

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Box No. V

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first phrase), and at least one supplementary channel ~~influenced only in the downlink direction ensuring particularly the transmission of data at a high speed~~ [see Section 1 below], implementing a multi-carrier technique ensuring a distribution of data over space time / frequency (paragraph 1: "hybrid OFDM-CDMA") and having a sub-frame structure (paragraph 44: the OFDM signal in D1 consists of consecutive **symbols**, which correspond to "sub-frames" in the application), which includes a stage of synchronisation of the supplementary channel at the **sub-frame** level (paragraph 62: "OFDM symbol **timing**")

itself comprising the following stages:

- detection of a defined instant on the principal channel;
- obtaining the beginning of a sub-frame in the supplementary channel, by shifting the instant detected forward by an given interval of time, which is not zero (paragraph 62: use of a **pilot signal** for synchronising the supplementary channel; paragraphs 55 and 122: D1 considers different embodiments for this pilot signal - see paragraphs 118 to 121 - to paragraph 122; it is mentioned however that this pilot signal, derived from the **principal** channel, can be repeated periodically at a lower rate than that of the symbols - the knowledge and use of the shift time is therefore implicit, as it is not possible to see how the system could function otherwise).

The subject matter of claim 1 differs from D1 in that

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citations and explanations supporting such statement

the said supplementary channel is only affected in the downlink direction, whereas in D1 the supplementary channel is used in both the **uplink and downlink** directions (paragraphs 72 to 92 for the discussion of the up transmission on the supplementary channel). Whether or not a channel working in **upwards** direction using a multi-carrier technique is **present** or **absent** is irrelevant to the solution of the problem to be solved, which is the synchronisation of the channel of the supplementary channel in a downwards direction.

4. Dependent claims **2 to 18 and 20 to 22** do not contain features, which combined with the features of any claim to which they refer, satisfy the requirements of the PCT with regard to novelty and inventive step (PCT Article 33 (2) and (3)).

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The expressions "high speed" and "low or medium speed" are relative and do not define the scope of the claims which use them. Moreover, they are both preceded by the word "particularly", which indicates that the subject matter of the claims can be modified by the substitution of unspecified features.

Therefore claims 1 to 24 do not satisfy the requirement for clarity stipulated in PCT Article 6, as supplemented by the PCT Guidelines Section 5.34.